

THE DEVELOPMENT OF SUBJECT SPECIFIC PEDAGOGY (SSP) BASED ON GUIDED INQUIRY WITH THE THEME OF “HEAT TRANSFER IN DAILY LIFE” TO IMPROVE THE CONCEPT UNDERSTANDING AND SCIENCE PROCESS SKILLS OF STUDENT AT SMP/MTS GRADE VII.

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ABSTRACT

This research aimed (1) to identify the quality of Subject Specific Pedagogy (SSP) was developed, (2) to determine the improving of student's concept understanding during the learning using Subject Specific Pedagogy (SSP), (3) to determine the improving of student's science process skills during the learning using Subject Specific Pedagogy (SSP) which has been developed that includes aspects of observing, classifying, measuring, arranging hypotheses, making conclusions and communicating.

This research was Research and Development or R&D using 4D development model (define, design, develop, disseminate). But the research was designed until develop stage because of time constraints. SSP IPA was validated by three expert lecturers and 3 science teachers. Development trials was conducted in SMP Negeri 15 Yogyakarta. The first phase, the small class development trials with the subject was 12 students. The second phase, the large class development trials with the subject was 30 students. The instruments that was used in this research were a validation sheet of SSP IPA, pretest and posttest question, observation sheets of student's science process skills, student's responses sheet of Students Worksheet (LKS), and the feasibility study observation sheet. The data of validation was analyzed using descriptive analysis and the data of student's science process skills and students's concept understanding was analyzed using gain score.

The result of the research was : (1) each product of SSP that was developed has very good quality. (2) The average of students' concept understanding improvement was 0.36 indicated medium categories. (3) The average of student's science process skills improvement that was observed was 0.86 indicated high categories.

Keywords: *SSP IPA, Guided Inquiry, Concepts Understanding, Science Process Skills*

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**PENGEMBANGAN *SUBJECT SPECIFIC PEDAGOGY* (SSP) BERBASIS
GUIDED INQUIRY DENGAN TEMA PERPINDAHAN KALOR DALAM
KEHIDUPAN SEHARI-HARI UNTUK MENINGKATKAN PEMAHAMAN
KONSEP DAN KETERAMPILAN PROSES SAINS SISWA SMP/MTS
KELAS VII**

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ABSTRAK

Penelitian ini bertujuan untuk (1) mengetahui kualitas produk *Subject Spesific Pedagogy* (SSP) yang dikembangkan, (2) mengetahui peningkatan pemahaman konsep siswa selama mengikuti pembelajaran menggunakan produk *Subject Spesific Pedagogy* (SSP), (3) mengetahui peningkatan keterampilan proses sains siswa selama mengikuti pembelajaran menggunakan produk *Subject Spesific Pedagogy* (SSP) yang telah dikembangkan yang meliputi aspek mengamati, mengklasifikasikan, mengukur, menyusun hipotesis, membuat kesimpulan dan mengkomunikasikan.

Penelitian ini merupakan penelitian pengembangan atau R & D (*Research and Development*) dengan menggunakan model pengembangan 4D (*define, design, develop, disseminate*). Tetapi penelitian ini dirancang sampai pada tahap *develop* karena keterbatasan waktu. Produk SSP IPA divalidasi oleh 3 orang dosen ahli dan 3 orang guru IPA. Uji coba pengembangan dilakukan di SMP Negeri 15 Yogyakarta. Tahap pertama, uji coba pengembangan kelas kecil dengan subjek 12 orang siswa. Tahap kedua, uji coba pengembangan kelas besar dengan subjek 30 orang siswa. Instrumen yang digunakan dalam penelitian ini berupa lembar validasi SSP IPA, soal *pretest* dan *posttest*, lembar observasi keterampilan proses sains siswa, angket respon siswa terhadap LKS, dan lembar observasi keterlaksanaan pembelajaran. Teknik analisis data hasil validasi menggunakan analisis deskriptif, peningkatan keterampilan proses dan pemahaman konsep siswa menggunakan *gain score*.

Hasil penelitian SSP IPA adalah sebagai berikut: (1) masing-masing produk SSP yang dikembangkan memiliki kualitas sangat baik. (2) rerata peningkatan pemahaman konsep siswa sebesar 0,36 dengan kategori sedang. (3) rerata peningkatan keterampilan proses siswa melalui hasil pengamatan sebesar 0,86 dengan kategori tinggi.

Kata Kunci: SSP IPA, Inkuiri Terbimbing, Pemahaman Konsep, Keterampilan Proses Sains

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